

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF DELAWARE**

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**IN THE MATTER OF THE  
APPLICATION OF DELMARVA  
POWER & LIGHT COMPANY, FOR  
AN INCREASE IN ELECTRIC BASE  
RATES AND MISCELLANEOUS  
TARIFF CHANGES  
(Filed on September 18, 2009)**

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**DOCKET NO. 09-414**

Direct Testimony and Exhibits of

**Michael P. Gorman**

On behalf of

**The Delaware Energy Users Group**

Project 9234  
February 10, 2010



**BRUBAKER & ASSOCIATES, INC.**  
CHESTERFIELD, MO 63017



**Q WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

A I will recommend a fair return on common equity and an overall rate of return for Delmarva Power & Light Company ("Delmarva" or Company").

**Q PLEASE SUMMARIZE YOUR RATE OF RETURN RECOMMENDATIONS.**

A I recommend the Delaware Public Service Commission ("Commission") award Delmarva a return on common equity of 9.9%. My recommended return on equity is at the midpoint of my estimated range of 9.7% to 10.1%. Based on this recommended return on equity, I recommend an overall rate of return of 7.56% for Delmarva, as shown on Exhibit MPG-1.

**Q HOW DID YOU ESTIMATE DELMARVA'S COST OF EQUITY?**

A My recommended return on equity for Delmarva is based on a Discounted Cash Flow (DCF), a Risk Premium (RP), and a Capital Asset Pricing Model (CAPM) analyses.

I demonstrate that my recommended return on equity and proposed capital structure for Delmarva will provide Delmarva with an opportunity to realize cash flow financial coverages and balance sheet strength that conservatively support Delmarva's current bond rating. Consequently, my recommended return on equity represents fair compensation for Delmarva's investment risk, and it will preserve Delmarva's financial integrity and credit standing.

**Q DID THE GLOBAL FINANCIAL CRISIS IN THE SECOND HALF OF 2008 SIGNIFICANTLY INCREASE COST OF CAPITAL IN THE MARKET?**

A It did temporarily but utility security values have recovered. Please refer to the utility and Treasury bond yield graph (Exhibit MPG-2, page 1). As shown on this graph,

1 during the last two quarters of 2008 and the beginning of 2009, utility bond yields  
2 increased significantly. Also, Treasury bond yields decreased during this same  
3 period of time. During this time of severe economic distress, the spread between  
4 utility bond yields and Treasury bond yields widened dramatically (yield spreads are  
5 shown on page 2) and the market exhibited a flight to quality. This was a difficult time  
6 for corporate issuers including utility companies. More recent data shows that utility  
7 bond yields have recovered dramatically and utility bond yield spreads to Treasury  
8 securities have declined to more normal levels.

9 **Q HOW DO YOU RECOMMEND THE COMMISSION USE THIS INFORMATION ON A**  
10 **CAPITAL MARKET COSTS?**

11 A Recognizing today's low cost capital market environment, the Commission should  
12 award Delmarva a return on equity that reflects fair compensation for its operating  
13 and financial risks, while at the same time minimizing the rate increase necessary to  
14 provide fair compensation to Delmarva and recover its cost of service.

15 In so doing the Commission should give strong consideration to the economic  
16 hardships imposed on Delmarva's customers in today's difficult economic climate.  
17 While the economy has not yet recovered from the global financial crisis, the capital  
18 markets have recovered from the severe conditions that took place in late 2008 and  
19 early 2009.

20 This is a balanced approach to ensure that rates are increased no more than  
21 necessary to fully recover prudent and reasonable costs, and also provide fair  
22 compensation.

**Industry Overview**

**Q PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.**

A In this section of my testimony I review the industry authorized returns on equity, current credit rating and investment return performance of the electric utility industry. Based on the assessments discussed below, I find the credit rating outlook of the industry to be strong and supportive of the industry's financial integrity. Further, electric utilities' stocks have exhibited strong return performance and are again characterized as a safe investment.

**Q PLEASE DESCRIBE THE ELECTRIC UTILITIES' CREDIT RATING OUTLOOK.**

A Standard & Poor's (S&P) provided an assessment of the credit rating of U.S. electric utilities for the first quarter 2009. S&P's commentary included the following:

Against a strong headwind in the credit markets, the regulated U.S. electric utility sector performed well during the first quarter of 2009. Highlights include continued capital market access with robust debt issuance by operating companies in this quarter. March 2009 issuance volume exceeded the combined first two months of 2009; through the first quarter of 2009 issuance exceeded \$16 billion, about 25% more than the same 2008 period. Several companies have proactively prefunded issuance in advance of maturities, taking advantage of investor appetite and favorable spreads as compared to investment-grade issuers in other sectors.

In response to recessionary pressures and slowing demand, many companies have pared back discretionary spending and growth plans. This moderating of capital expenditure programs should ease some balance sheet and liquidity burden.

\* \* \*

Our forecast for the electric sector is for a stable ratings trend for the balance of 2009. Currently, more than three-quarters of rated entities have stable outlooks with the average rating at 'BBB'. The depth of the recession in certain pockets of the U.S. economy, combined with weaker cash flow measures and ballooning debt balances, may cause credit deterioration on the margin for some, but we expect the majority of electric companies to maintain current ratings in 2009. Our forecast incorporates expectations of responsive regulatory decision making,

continued demand by investors for utility operating company debt, ample liquidity access provided by bank lines, and moderate capital expenditures. On the horizon, future capital needs to improve reliability, integrated renewable resources, and potentially address carbon emissions limit upward rating momentum for the near term.<sup>1</sup>

Further, Moody's also acknowledges the following for the electric utility industry in its report. Moody's states:

#### **Overview**

The U.S. investor-owned electric utility sector enjoys solid credit metrics and the fundamental credit outlook remains stable. In general, state regulators continue to let the utilities recover prudently incurred operating costs and capital expenditures relatively quickly, and with reasonable rates of return. Moreover, we believe state regulators would otherwise prefer to regulate financially healthy companies.

The sector is also well positioned relative to many other corporate/industrial sectors, primarily due to the fundamental business plan: providing monopolistic electric service within a designated service territory in exchange for oversight and limitations on profitability. However, we are increasingly concerned with business and operating risks, which are not new but appear to be accelerating faster than previously understood. These business and operating risks include potential environmental legislation from the Obama Administration; the continued capital investment needs for refurbishing aging infrastructure; and a potentially more contentious regulatory relationship amid a protracted or severe recession.<sup>2</sup>

Similarly, Fitch states:

#### **Overview**

The U.S. Utilities, Power, and Gas (UPG) sector 2010 outlook is framed in the context of Fitch Ratings' outlook for a slow U.S. economic recovery in 2010, with stable outlooks for most of the business segments within the UPG universe except for negative 2010 credit outlook for competitive generators and retail propane distributors.

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<sup>1</sup>Standard & Poor's RatingsDirect: "Industry Report Card: U.S. Electric Utility Sector Performed Well In First Quarter Of 2009," March 30, 2009 (emphasis added).

<sup>2</sup>Moody's Investors Service Industry Outlook: "U.S. Investor-Owned Electric Utilities," January 2009 (emphasis added).

**Resilient Performance in 2009**

Companies in the UPG sector weathered the recession and financial crisis of 2008–2009 with considerably less pain than sectors such as financial institutions, cyclical industrials, and retailers. The absence of significant defaults in the sector is in stark contrast to the upswing in defaults and bankruptcy filings across the rest of the U.S. economy, consistent with the defensive reputation of the sector.

In general, companies in the UPG sector entered 2009 in reasonably sound financial condition; some drew down their bank credit facilities during the banking crisis in late 2008 and repaid the loans as the bank and financial markets stabilized during 2009.<sup>3</sup>

As noted by S&P, Moody's and Fitch above, the regulated electric utility industry is maintaining strong investment grade credit and is well positioned to weather the current economic downturn. Therefore, reasoned and rational adjustments to Delmarva's rates should attempt to provide fair compensation, but also support Delmarva's competitive rate position and service area economy.

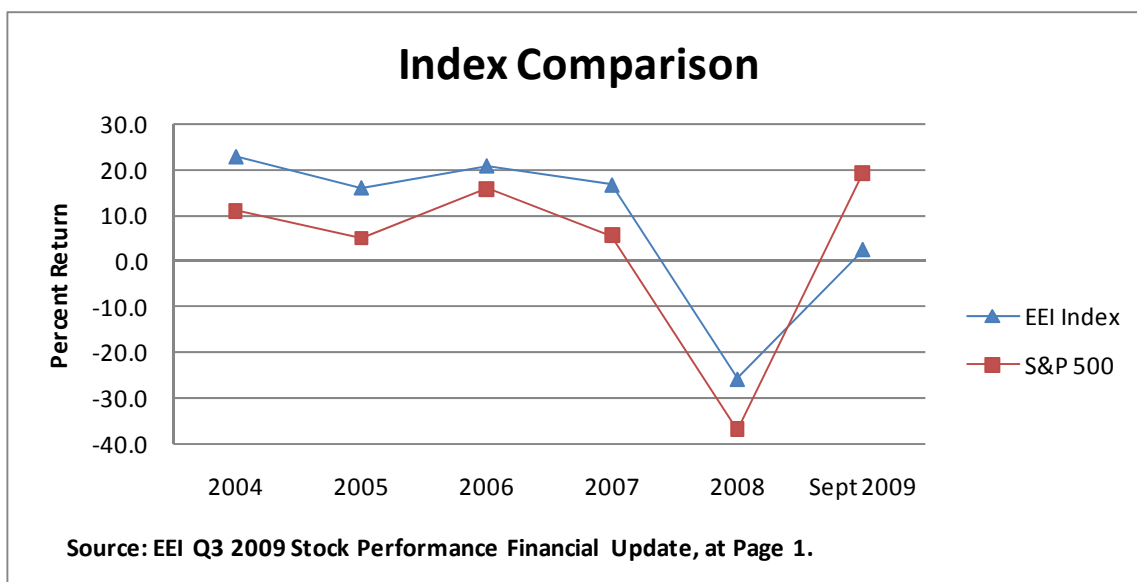
**Q PLEASE DESCRIBE ELECTRIC UTILITY STOCK PRICE PERFORMANCE OVER THE LAST FIVE YEARS.**

A As shown in Figure 1 below, the Edison Electric Institute (EEI) has recorded electric utility stock price performance compared to the market. The EEI data shows that its Electric Utility Index has outperformed the market over the last five years (2004-2008). Again, this strong stock performance indicates commission-authorized returns on equity over the last several years have been positively received by the market.

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<sup>3</sup>Fitch Ratings: "U.S. Utilities, Power and Gas 2010 Outlook," December 4, 2009.

FIGURE 1



During the first three quarters of 2009, the EEI Index underperformed the market, which is not unusual for stocks that are considered “safe havens” during periods of market turbulence. In fact, the EEI states the following:

Given the bullish turn in the markets since March, the EEI Index’s underperformance of the major averages in 2009 is not surprising. Defensive stocks typically lag early in market rebounds coming out of recession, and the EEI Index had delivered a five-year run of beating broad market returns (from 2004 through 2008). As in the second quarter, the stock market’s biggest gainers in the third were often the financially weaker and more speculative issues that had fallen hardest in the market downturn and beaten-down cyclical companies benefitting from a prospective return to global economic growth.

\* \* \*

The Utility sector – with its conservative, stable business models and large regulated asset base – suffered less in the crushing bear market than did many other industries, and has predictably trailed those that bounced off very depressed bear market lows.<sup>4</sup>

<sup>4</sup>EEI Q3 2009 Financial Update.



## **DELMARVA'S CREDIT STANDING**

**Q PLEASE SUMMARIZE DELMARVA'S CURRENT CREDIT STANDING.**

**A** Delmarva is owned by Pepco Holdings, Inc. (PHI). Delmarva's current corporate bond ratings from S&P and Moody's are "BBB" and "Baa2," respectively. Delmarva's current senior secured credit ratings from S&P and Moody's are "A-" and "A3," respectively.<sup>5</sup> Recent comments from S&P, Moody's and Fitch Ratings concerning Delmarva's credit position include the following:

### **S&P:**

#### **Major Rating Factors**

##### **Strengths:**

- Stable cash flows,
- Steady customer load, and
- Low operating risk T&D utility.

##### **Weaknesses:**

- Riskier unregulated businesses comprise roughly one-third of consolidated cash flow,
- Contingent liabilities associated with IRS challenge related to sale-in lease-out (SILO) transactions, and
- Large capital spending program that could pressure consolidated financial measures during construction.

#### **Rationale**

The ratings on Delmarva Power & Light Co. (DPL) are based on the consolidated rating on diversified energy company PEPCO Holdings Inc. (PHI) and the consolidated credit profile of its regulated and unregulated businesses:

DPL supports the rating on PHI contributing approximately 20% of PHI's consolidated cash flow in 2008 and providing PHI with a growing base of residential and commercial customers. PHI's business risk profile is considered strong after incorporating the excellent business profiles of the rated utilities, including DPL, and the company's more risky unregulated operations.

We consider the unregulated businesses significantly more risky than the utilities due to their exposure to volatile commodity prices and very competitive energy markets. These risks are partly mitigated by the

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<sup>5</sup>Kamerick Direct at 22.

company's strategy to hedge a majority of its capacity over a two- to three-year period.<sup>6</sup>

DPL's financial risk profile reflects that of the consolidated profile, which we consider significant and includes adjusted financial measures that, although they have declined from the end of 2008, remain in line for the rating. In addition, our expectation is that financial measures, although weak for the financial profile, will strengthen as capital investments are reflected in revenues.

**Moody's:**

**Summary Rating Rationale**

DPL's Baa2 senior unsecured rating reflects the relatively lower business risk profile of its T&D operations, the rather extensive planned construction program, a strong balance sheet and financial metrics that are appropriate for its rating category. The rating also considers DPL's ownership by PHI, which has approximately \$2.1 billion of long-term holding company debt outstanding and significant non-regulated operations.<sup>7</sup>

**Fitch Ratings:**

Delmarva's debt ratings reflect the relatively stable cash flows of its regulated electric transmission and distribution and natural gas distribution operations, which benefit from full and timely commodity cost recovery and a bill stabilization adjustment (BSA) on revenues received from the Maryland customer base and credit metrics that are supportive of its current rating. The BSA, which is adjusted monthly, is a mechanism that decouples revenues from changes in volumes of electricity delivered and ties revenue growth to customer growth. The rating also considers Delmarva's sizable \$1.9 billion, five-year capital expenditure program. Credit metrics are sound with EBITDA/interest of 5.3 times (x), FFO/interest coverage of 5.9x and debt-to-EBITDA of 3.8x for the latest 12-months (LTM) ending Sept. 30, 2008.

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<sup>6</sup>Standard & Poor's RatingsDirect: "Delmarva Power & Light Co.," August 6, 2009 (emphasis added).

<sup>7</sup>Moody's Investors Services: "Delmarva Power & Light," August 6, 2009.

<sup>8</sup>Fitch Ratings: "Fitch Rates Delmarva Power & Light Company's \$250 MM First Mortgage Bonds 'A,' " December 8, 2008 (emphasis added).

Q HOW DID YOU USE THIS INFORMATION IN ASSESSING DELMARVA'S INVESTMENT RISK AND TO ESTIMATE ITS CURRENT MARKET RETURN ON EQUITY?

A I carefully considered the credit opinions of S&P, Moody's and Fitch in assessing Delmarva's current investment risk and outlooks. Specifically, I recognized that S&P's operating risk assessment of Delmarva is negatively impacted by Delmarva's affiliation with its higher risk non-regulated affiliates.

Moody's and Fitch's credit rating, on the other hand, is primarily focused on Delmarva's stand-alone financial and operating risk and reflects the low operating risk of a transmission and distribution utility.

### **DELMARVA'S PROPOSED CAPITAL STRUCTURE**

Q WHAT CAPITAL STRUCTURE IS THE COMPANY REQUESTING TO USE TO DEVELOP ITS OVERALL RATE OF RETURN FOR ELECTRIC OPERATIONS IN THIS PROCEEDING?

A Delmarva's proposed capital structure, as supported by Delmarva's witness Dr. Roger Morin, is shown below in Table 1.

<b>TABLE 1</b>	
<b><u>Delmarva's Proposed Capital Structure</u></b>	
<b>(Pro Forma as of June 30, 2009)</b>	
<b><u>Description</u></b>	<b><u>Percent of Total Capital</u></b>
Long-Term Debt	52.48%
Common Equity	<u>47.52%</u>
Total Regulatory Capital Structure	100.00%
Source: Schedule RAM-14.	

1    **Q     DO YOU RECOMMEND ANY ADJUSTMENTS TO THE CAPITAL STRUCTURE**  
2           **PROPOSED BY DR. MORIN TO SET DELMARVA'S RATES IN THIS**  
3           **PROCEEDING?**

4    A     No.

5    **Return on Common Equity**

6    **Q     PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF COMMON**  
7           **EQUITY."**

8    A     A utility's cost of common equity is the return investors require on an investment in  
9           the utility. Investors expect to achieve their return requirement from receiving  
10          dividends and stock price appreciation.

11   **Q     PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED**  
12          **UTILITY'S COST OF COMMON EQUITY.**

13   A     In general, determining a fair cost of common equity for a regulated utility has been  
14          framed by two decisions of the U.S. Supreme Court: *Bluefield Water Works &*  
15          *Improvement Co. v. Public Serv. Commission of West Virginia*, 262 U.S. 679 (1923)  
16          and *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

17                 These decisions identify the general standards to be considered in  
18          establishing the cost of common equity for a public utility. Those general standards  
19          provide that the authorized return should: (1) be sufficient to maintain financial  
20          integrity; (2) attract capital under reasonable terms; and (3) be commensurate with  
21          returns investors could earn by investing in other enterprises of comparable risk.

**Q PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE THE COST OF COMMON EQUITY FOR DELMARVA.**

A I have used several models based on financial theory to estimate Delmarva's cost of common equity. These models are: (1) a constant growth Discounted Cash Flow (DCF) model using analyst growth data; (2) a sustainable growth DCF model; (3) a multi-stage growth DCF model; (4) a Capital Asset Pricing Model (CAPM); and (5) a risk premium (RP) model. I have applied these models to a group of publicly traded utilities that I have determined have investment risk similar to Delmarva.

**Q HOW DID YOU SELECT A UTILITY PROXY GROUP SIMILAR IN INVESTMENT RISK TO DELMARVA TO ESTIMATE ITS CURRENT MARKET COST OF EQUITY?**

A I relied on the same proxy groups used by Delmarva witness Dr. Morin to estimate Delmarva's return on equity.

**Q HOW DOES THE COMBINATION ELECTRIC AND GAS UTILITIES PROXY GROUP USED BY DR. MORIN AND YOU COMPARE TO THE INVESTMENT RISK OF DELMARVA?**

A The Combination Electric and Gas Utilities Proxy Group is shown on page 1 of Exhibit MPG-3. This proxy group has an average senior secured credit rating from S&P of "A-," which is identical to Delmarva's senior secured credit rating. This proxy group's senior secured credit rating from Moody's is "A3," which is identical to Delmarva's senior secured credit rating from Moody's. Therefore, I believe this proxy group is reasonably risk comparable to Delmarva's investment risk based on a comparison of bond ratings.

The Combination Electric and Gas Utilities Proxy Group has an average common equity ratio of 45.8% (including short-term debt) from AUS and 46.3%

1 (excluding short-term debt) from *Value Line*. This proxy group's common equity ratio  
2 is comparable to Delmarva's of 47.5%, excluding short-term debt. As such, this proxy  
3 group has comparable financial risk to Delmarva.

4 I also compared Delmarva's business risk to the business risk of my proxy  
5 group based on S&P's ranking methodology. Delmarva has an S&P business risk  
6 profile of "Excellent," which is the same as the S&P business risk profile score of the  
7 proxy group. The S&P business profile score indicates Delmarva's business risk is  
8 comparable to the proxy group.

9 S&P ranks the business risk of a utility company as part of its corporate credit  
10 rating review. S&P considers the total investment risk in assigning bond ratings to  
11 issuers, including utility companies. S&P's analysis considers both business risk and  
12 financial risk in assessing the total credit risk of a corporate entity, including utility  
13 companies. S&P's business risk profile score is based on a six-notch credit rating  
14 starting with "Vulnerable" (highest risk) to "Excellent" (lowest risk). Most utility  
15 companies' business risk is ranked at the lowest risk categories of "Excellent" or one  
16 notch higher risk of "Strong."<sup>9</sup>

17 The EEI operating designation for most of the companies in the Combination  
18 Electric and Gas Utilities Proxy Group is "Regulated" or "Mostly Regulated." Only two  
19 companies are designated as "Diversified." The average for all the companies is  
20 "Regulated," which indicates similar operating risk to that of Delmarva.

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<sup>9</sup>Standard & Poor's: "U.S. Regulated Electric Utilities Strongest to Weakest," November 30, 2007.

**Q PLEASE DESCRIBE EEI'S BUSINESS RISK ASSESSMENT OF ELECTRIC UTILITY COMPANIES.**

A EEI rates publicly traded companies based on their relative exposure to regulated and non-regulated operating risk. EEI designates companies that have 80% or more of total assets in regulated operations "Regulated" entities. "Mostly Regulated" entities are those companies that have 50% to 80% of total assets in regulated operations. Finally, EEI rates companies with less than 50% of assets in regulated enterprises as "Diversified" companies.<sup>10</sup> EEI places publicly traded companies in three categories: "Regulated," "Mostly Regulated" and "Diversified."

The Combination Electric and Gas Utilities Proxy Group is made up entirely of "Regulated" and "Mostly Regulated" companies as determined by EEI. There are no "Diversified" companies included in this proxy group. EEI's operating risk assessment of Delmarva is "Regulated." Hence, the operating risk of this proxy group is comparable to that of Delmarva.

Based on this assessment, I believe the Combination Electric and Gas Utilities Proxy Group has total investment risk that is reasonably comparable to Delmarva.

**Q HOW DOES THE S&P ELECTRIC UTILITIES PROXY GROUP INVESTMENT RISK USED BY DR. MORIN AND YOU COMPARE TO THAT OF DELMARVA?**

A The S&P Electric Utilities Proxy Group is shown on page 2 of Exhibit MPG-3. This proxy group has an average senior secured credit rating from S&P of "A-," which is identical to Delmarva's senior secured credit rating. This proxy group's credit rating from Moody's is "A3," which is identical to Delmarva's senior secured credit rating

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<sup>10</sup>EEI Dividends Q3 2009 Financial Update.

from Moody's. Therefore, I believe this proxy group is reasonably risk comparable to Delmarva based on a comparison of bond ratings.

The S&P Electric Utilities Proxy Group has an average common equity ratio of 43.3% (including short-term debt) from AUS and 44.7% (excluding short-term debt) from *Value Line*. This proxy group's common equity ratio is slightly lower than Delmarva's common equity ratio of 47.5%. As such, this proxy group has greater financial risk than Delmarva.

I also compared Delmarva's business risk to the business risk of my proxy group based on S&P's ranking methodology. Delmarva has an S&P business risk profile of "Excellent," which is the same as the S&P business risk profile score of the proxy group. The S&P business profile score indicates Delmarva's business risk is comparable to the proxy group.

Finally, the S&P Electric Utilities Proxy Group has an EEI rating primarily of "Mostly Regulated." This indicates an operating risk slightly higher than that of Delmarva.

### **Discounted Cash Flow Model**

**Q PLEASE DESCRIBE THE DCF MODEL.**

A The DCF model posits that a stock is valued by summing the present value of expected future cash flows discounted at the investor's required rate of return or cost of capital. This model is expressed mathematically as follows:

$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty} \text{ where} \quad (\text{Equation 1})$$

$P_0$  = Current stock price

$D$  = Dividends in periods 1 -  $\infty$

$K$  = Investor's required return



This model can be rearranged to estimate the discount rate or investor-required return, "K." If it is reasonable to assume that earnings and dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

$$K = D_1/P_0 + G \quad (\text{Equation 2})$$

K = Investor's required return  
D<sub>1</sub> = Dividend in first year  
P<sub>0</sub> = Current stock price  
G = Expected constant dividend growth rate

Equation 2 is referred to as the annual "constant growth" DCF model.

**Q PLEASE BRIEFLY DESCRIBE THE SPECIFIC TYPES OF DCF STUDIES YOU PERFORMED.**

**A** I performed a constant growth DCF analysis using consensus analysts' growth rate projections, a constant growth DCF study using an internally sustainable growth rate methodology, and a multi-stage growth DCF study. The constant growth study using security analysts' three- to five-year growth rate projections attempts to estimate the results of security analysts' growth outlooks, which should be highly influential to investors in valuing utility stock prices. Unfortunately, analysts' growth rate projections are for a relatively short period of time, and may not reflect the long-term sustainable growth rate outlooks that investors rely on to price utility securities. The sustainable constant growth DCF analysis is based on a derived sustainable growth rate, but that rate may not accurately gauge investors' short-term growth outlooks. Finally, I rely on a multi-stage growth DCF analysis for the added benefit, and potential accuracy, of reflecting investor expectations for variable growth outlooks over time.

1    **Q     PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF**  
2    **MODELS.**

3    A     As shown under Equation 2 above, the DCF model requires a current stock price,  
4           expected dividend, and expected growth rate in dividends.

5    **Q     WHAT STOCK PRICE AND DIVIDEND HAVE YOU RELIED ON IN YOUR**  
6    **CONSTANT GROWTH DCF MODELS?**

7    A     I relied on the average of the weekly high and low stock prices over a 13-week period  
8           ended January 29, 2010. An average stock price is less susceptible to market price  
9           variations than a spot price. Therefore, an average stock price is less susceptible to  
10          aberrant market price movements, which may not be reflective of the stock's long-  
11          term value.

12           A 13-week average stock price is still short enough to contain data that  
13          reasonably reflects current market expectations, but is not so short a period as to be  
14          susceptible to market price variations that may not be reflective of the security's  
15          long-term value. In my judgment, a 13-week average stock price is a reasonable  
16          balance between the need to reflect current market expectations and the need to  
17          capture sufficient data to smooth out aberrant market movements.

18           To compute the dividend input, I used the most recently paid quarterly  
19          dividend, as reported in *The Value Line Investment Survey*. This quarterly dividend  
20          was multiplied by 4 and adjusted for next year's growth to produce the  $D_1$  factor for  
21          use in Equation 2 above.

1   **Q     HOW DID YOU DETERMINE THE DIVIDEND GROWTH RATES YOU USED IN**  
2   **YOUR CONSTANT GROWTH DCF MODELS?**

3   A     There are several methods one can use to estimate the expected growth in  
4         dividends. However, for purposes of determining the market-required return on  
5         common equity, one must attempt to estimate investors' consensus about what the  
6         dividend or earnings growth rate will be, and not what an individual investor or analyst  
7         may use to form individual investment decisions.

8                 Security analysts' growth estimates have been shown to be more accurate  
9         predictors of future returns than growth rates derived from historical data. Assuming  
10        the market generally makes rational investment decisions, forward-looking growth  
11        projections are more likely reflective of the growth estimates considered by the  
12        market that influence observable stock prices than are growth rates derived from only  
13        historical data.

14               For my constant growth DCF analyses, I have relied on two types of  
15        forward-looking growth estimates. First, I relied on a consensus, or mean, of  
16        professional security analysts' earnings growth estimates as a proxy for the investor  
17        consensus dividend growth rate expectations. I used the average of three sources of  
18        analysts' growth rate estimates: Zacks, SNL Financial, and Reuters. All consensus  
19        analysts' projections used were available on February 3, 2010, as reported online.

20               Each consensus growth rate projection is based on a survey of security  
21        analysts. The consensus estimate is a simple arithmetic average, or mean, of  
22        surveyed analysts' earnings growth forecasts. A simple average of the growth  
23        forecasts gives equal weight to all surveyed analysts' projections. Whether any  
24        particular analyst's forecast is more representative of general market expectations is

1 problematic. Therefore, a simple average, or arithmetic mean, of analyst forecasts is  
2 a good proxy for market consensus expectations.

3 Second, I relied on a sustainable growth rate methodology to drive a long-term  
4 sustainable forward-looking growth rate.

5 **Q WHAT IS THE GROWTH RATE YOU USED IN YOUR CONSTANT GROWTH DCF**  
6 **MODEL BASED ON ANALYST GROWTH RATES?**

7 A The growth rates I used in my DCF analysis are shown on Exhibit MPG-4. The  
8 average and median growth rates for my Combination Electric and Gas Utilities Proxy  
9 Group are 5.47% and 5.17%, respectively. The average and median growth rates for  
10 my S&P Electric Utilities Proxy Group are 5.59% and 5.43%, respectively.

11 **Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL USING**  
12 **CONSENSUS ANALYSTS' GROWTH RATES?**

13 A As shown on Exhibit MPG-5, the average and median constant growth DCF returns  
14 for my Combination Electric and Gas Utilities Proxy Group are 10.13% and 9.86%,  
15 respectively, and for the S&P Electric Utilities Proxy Group are 10.59% and 10.37%,  
16 respectively. These DCF results produce a DCF range of 9.86% to 10.59%, with a  
17 midpoint of 10.23%.

18 **Q DO YOU HAVE ANY COMMENTS CONCERNING THE RESULTS OF YOUR**  
19 **CONSTANT GROWTH DCF ANALYSIS USING CONSENSUS ANALYSTS'**  
20 **GROWTH RATES?**

21 A Yes. The constant growth DCF analyses are driven by growth rates that are higher  
22 than a reasonable estimate of long-term sustainable growth. For example, the

1 Combination Electric and Gas Utilities have an average growth rate of 5.47%, and the  
2 S&P Electric Utilities Proxy Group has an average growth rate of 5.59%. These  
3 growth rates exceed the expected long-term growth of the U.S. GDP, and therefore  
4 produce an overstated DCF return estimate. These analysts' growth rates are made  
5 to reflect expected growth over the next three to five years. However, constant  
6 growth DCF analysis requires a long-term sustainable growth. Since these growth  
7 rates are higher than the expected long-term U.S. GDP growth, they exceed the  
8 long-term sustainable growth rate outlook, and overstate the constant growth DCF  
9 return estimates.

10 **Q HOW DO THE PROXY GROUPS' PROJECTED GROWTH RATES COMPARE TO**  
11 **HISTORICAL ACTUAL GROWTH AND CONTEMPORARY PROJECTED**  
12 **NOMINAL GROSS DOMESTIC PRODUCT (GDP) GROWTH AND INFLATION**  
13 **RATES?**

14 **A** As shown on Exhibit MPG-7, the historical growth of the proxy groups' dividend  
15 (columns 1 and 2) is lower than or comparable to the historical nominal GDP growth  
16 (columns 7 and 8).

17 This historical perspective confirms that the outlook for earnings growth over  
18 the next three to five years continues to be unusually robust, and it supports my  
19 contention that current three- to five-year earnings growth projections are higher than  
20 the sustainable long-term growth rate.

1    **Q     WHY DO YOU BELIEVE THE PROXY GROUPS' THREE- TO FIVE-YEAR**  
2    **GROWTH RATE IS IN EXCESS OF A LONG-TERM SUSTAINABLE GROWTH?**

3    A     The three- to five-year growth rate of the proxy groups exceeds the growth rate of the  
4     overall U.S. economy. As developed below, the consensus of published economists  
5     projects that the U.S. GDP will grow at a rate of no more than 4.9% over the next 10  
6     years. A company cannot grow, indefinitely, at a faster rate than the market in which  
7     it sells its products. The U.S. economy, or GDP, growth projection represents a  
8     ceiling, or high-end, sustainable growth rate for a utility over an indefinite period of  
9     time.

10   **Q     WHY IS THE GDP GROWTH PROJECTION CONSIDERED A CEILING GROWTH**  
11   **RATE FOR A UTILITY?**

12   A     Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the  
13     overall economy. Utilities' earnings/dividend growth is created by increased utility  
14     investment or rate base. Utility plant investment, in turn, is driven by service area  
15     economic growth and demand for utility service. In other words, utilities invest in  
16     plant to meet sales demand growth, and sales growth in turn is tied to economic  
17     growth in their service areas. The Energy Information Administration (EIA) has  
18     observed that utility sales growth is less than U.S. GDP growth, as shown on Exhibit  
19     MPG-8. Utility sales growth has lagged behind GDP growth. Hence, nominal GDP  
20     growth is a very conservative, albeit overstated, proxy for electric utility sales growth,  
21     rate base growth, and earnings growth. Therefore, GDP growth is a reasonable  
22     proxy for the highest sustainable long-term growth rate of a utility.

1    **Q     IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE**  
2           **LONG TERM, A COMPANY’S EARNINGS AND DIVIDENDS CANNOT GROW AT**  
3           **A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?**

4    **A     Yes.** This concept is supported in both published analyst literature and academic  
5           work. Specifically, in a textbook entitled *Fundamentals of Financial Management*,  
6           published by Eugene Brigham and Joel F. Houston, the authors state as follows:

7                   The constant growth model is most appropriate for mature  
8                   companies with a stable history of growth and stable future  
9                   expectations. Expected growth rates vary somewhat among  
10                  companies, but dividends for mature firms are often expected to  
11                  grow in the future at about the same rate as nominal gross  
12                  domestic product (real GDP plus inflation).<sup>11</sup>

13                Also, Morningstar’s *Stocks, Bonds, Bills and Inflation 2009 Yearbook*  
14                *Valuation Edition* tracked dividends of the stock market in comparison to GDP growth  
15                over the period 1926 through the end of 2008.<sup>12</sup> Based on that study, the authors  
16                found that earnings and dividends for the market have historically grown in tandem  
17                with the overall economy. It is important to note that the growth of companies  
18                included in the overall market will normally be higher than that of utility companies.  
19                These non-utility companies achieve a higher level of growth because they retain a  
20                larger percentage of their earnings and pay out a much smaller percentage of their  
21                earnings as dividends. Retaining higher percentages of total earnings fuels stronger  
22                growth for these non-utility companies. Since the market in general grows at the  
23                overall GDP growth rate, it is very conservative (favorable to utilities) to assume that  
24                utility companies could achieve this same level of sustained growth without a material  
25                reduction in their dividend payout ratios. As such, using the GDP as a maximum

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<sup>11</sup>*Fundamentals of Financial Management* Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation, at 298.

<sup>12</sup>Morningstar, Inc.: *Stocks, Bonds, Bills and Inflation 2009 Yearbook Valuation Edition* at 67.

sustainable growth rate is a very conservative and high-end estimate for utility companies.

### **Sustainable Growth Constant DCF**

**Q IS THERE A WAY OF DEVELOPING A DCF ESTIMATE USING A SUSTAINABLE LONG-TERM GROWTH RATE?**

A Yes. This can be developed using an internal growth rate, or sustainable growth, for the companies included in the proxy groups using *Value Line's* three- to five-year earnings and dividends projections and estimated earned return on equity. An internal growth rate methodology estimates the sustainable growth rate based on the percentage of the utility's earnings that are retained in the company and reinvested in utility plant and equipment. These reinvested earnings increase the earnings base and will increase the earned return on equity when those additional earnings are put into service, and the company is allowed to earn its authorized return on the additional investment.

The internal growth methodology is tied to the percentage of earnings retained in the company and not paid out as dividends. The earnings retention ratio is 1 minus the dividend payout ratio. As the payout ratio declines, the earnings retention ratio increases. An increased earnings retention ratio will fuel stronger growth because the business funds more investments with retained earnings. As shown on Exhibit MPG-9, *Value Line* projects the proxy group to have a declining dividend payout ratio over the next three to five years. These dividend payout ratios and earnings retention ratios can then be used to develop a sustainable long-term earnings retention growth rate to help gauge whether analysts' current three- to five-year growth rate projections can be sustained over an indefinite period of time.



As shown on Exhibit MPG-10, the average and median sustainable growth rates for my Combination Electric and Gas Utilities and S&P Electric Utilities Proxy Groups using this internal growth rate model fall in the range of 4.99% to 6.07%.

The proxy groups' average analysts' growth rates of 5.47% and 5.59%, and a three- to five-year projected dividend payout ratio of approximately 57.85% and 55.95% would require an earned return on book equity of 12.98% and 12.69%<sup>13</sup> to support the estimated long-term sustainable growth rate. In comparison, *Value Line* is projecting a group average return on book equity of 11.26% and 11.94%, respectively.<sup>14</sup> This information supports my conclusion that current analysts' three- to five-year earnings growth projections are not sustainable and will decline over time.

**Q WHAT IS THE DCF ESTIMATE USING THIS SUSTAINABLE LONG-TERM GROWTH RATE DCF MODEL?**

A The DCF estimate based on this sustainable growth rate is developed on Exhibit MPG-11. As shown on that exhibit, the average and median sustainable growth DCF returns for my Combination Electric and Gas Utilities Proxy Group are both 9.97%, and those for my S&P Electric Utilities Proxy Group are 10.93% and 10.51%, respectively. From this data, I believe an appropriate range for a DCF return estimate is 9.97% to 10.51%. I relied on the median estimate for my S&P Electric Utilities Proxy Group because the average result is skewed by some very high estimates for CenterPoint Energy, Exelon Corp. and Dominion Resources, and a few low estimates for Duke Energy, Pepco Holdings, and NiSource. These average return estimates may be more reflective of non-regulated operations than regulated.

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<sup>13</sup>  $5.47\% \div (1 - 57.85\%) = 12.98\%$ , and  $5.59\% \div (1 - 55.95\%) = 12.69\%$ .

<sup>14</sup> Exhibit MPG-10, pages 1 and 2, column 4.

Based on a range of 9.97% to 10.51%, I believe my sustainable growth DCF return estimate is 10.24%.

### **Multi-Stage Growth DCF Model**

#### **Q HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?**

A Yes. My first constant growth DCF is based on consensus analysts' growth rate projections, so it is a reasonable reflection of rational investment expectations over the next three to five years. The limitation on the constant growth DCF model is that it cannot reflect a rational expectation that a period of high/low short-term growth can be followed by a change in growth to a rate that is more reflective of long-term sustainable growth. Hence, I performed a multi-stage growth DCF analysis to reflect this outlook of changing growth expectations.

#### **Q PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.**

A The multi-stage growth DCF model reflects the possibility of non-constant growth for a company over time. The multi-stage growth DCF model reflects three growth periods: (1) a short-term growth period, which consists of the first five years; (2) a transition period, which consists of the next five years (6 through 10); and (3) a long-term growth period, starting in year 11 through perpetuity.

For the short-term growth period (years 1-5), I relied on the consensus analysts' growth projections described above in relationship to my constant growth DCF model. In the third stage starting in the year 11, I used the long-term GDP forecast as a long-term sustainable growth rate. In the Transition growth stage (years 6-10), I used an annual linear change from the short-term growth to the long-term growth.

1    **Q     WHAT DO YOU BELIEVE IS A REASONABLE SUSTAINABLE LONG-TERM**  
2    **GROWTH RATE?**

3    A     A reasonable growth rate that can be sustained in the long run should be based on  
4     consensus analysts' projections. *Blue Chip Financial Forecasts* publishes consensus  
5     GDP growth projections twice a year. Based on its latest issue, the consensus  
6     economists published a GDP growth rate of 4.9% projected for 10 years out.<sup>15</sup>

7                Therefore, I use the consensus economists' projected 10-year outlook on the  
8     GDP growth rate of 4.9%, as published by *Blue Chip Financial Forecasts*, as an  
9     estimate of sustainable long-term growth starting six years out. This consensus GDP  
10    growth forecast represents the most likely views of market participants because it is  
11    based on published economist projections.

12   **Q     WHAT STOCK PRICE, DIVIDEND AND GROWTH RATES DID YOU USE IN YOUR**  
13   **MULTI-STAGE GROWTH DCF ANALYSIS?**

14   A     I relied on the same 13-week stock price and the most recent quarterly dividend  
15    payment discussed above. For stage one growth, I used the consensus analysts'  
16    earnings growth rate projections discussed above in my constant growth DCF model.  
17    The transition period begins in year 6 and ends in year 10. In this transition growth  
18    stage, I adjusted the growth rate each year, to form a linear movement of the growth  
19    rate from the short-term stage to the long-term stage. For the long-term sustainable  
20    growth rate starting in year 11, I used 4.9%, which is the consensus economists'  
21    projected nominal GDP growth rate.

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<sup>15</sup>*Blue Chip Financial Forecasts*, December 1, 2009, at 14.

**Q WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF MODEL?**

A As shown on Exhibit MPG-12, the average and median multi-stage growth DCF returns on equity for my Combination Electric and Gas Utilities Proxy Group are 9.68% and 9.61%, and for the S&P Electric Utilities Proxy Group are 10.07% and 9.94%. The multi-stage growth DCF falls in the range of 9.61% to 10.07%, with a midpoint of 9.84%.

**Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.**

A The results from my DCF analyses are summarized in the table below:

<b>TABLE 2</b>	
<b><u>Summary of DCF Results</u></b>	
<b><u>Description</u></b>	<b><u>ROE</u></b>
Constant Growth DCF Model (Analysts' Growth)	10.23%
Constant Growth DCF Model (Sustainable Growth)	10.24%
Multi-Stage Growth DCF Model	<u>9.84%</u>
Average DCF Return	10.10%

For reasons set forth above, I believe my constant growth DCF model based on analysts' growth should not be used on a stand-alone basis, because the current growth rate and dividend yield estimates represent contradictory investment outlooks. The constant growth DCF model based on the sustainable growth approach is based on a growth rate that is sustainable in the long term in comparison to GDP growth, but may not reflect analysts' short-term growth outlooks. The multi-stage growth DCF model return reflects the expectation of changing growth rates over time. Therefore, the average of all my DCF results produces a DCF return of approximately 10.10%.

**RISK PREMIUM MODEL**

**Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.**

A This model is based on the principle that investors require a higher return to assume greater risk. Common equity investments have greater risk than bonds because bonds have more security of payment in bankruptcy proceedings than common equity and the coupon payments on bonds represent contractual obligations. In contrast, companies are not required to pay dividends on common equity, or to guarantee returns on common equity investments. Therefore, common equity securities are considered to be more risky than bond securities.

This risk premium model is based on two estimates of an equity risk premium. First, I estimated the difference between the required return on utility common equity investments and Treasury bonds. The difference between the required return on common equity and the bond yield is the risk premium. I estimated the risk premium on an annual basis for each year over the period 1986 through 2009. The common equity required returns were based on regulatory commission-authorized returns for electric utility companies. Authorized returns are typically based on expert witnesses' estimates of the contemporary investor required return.

The second equity risk premium method is based on the difference between regulatory commission-authorized returns on common equity and contemporary "A" rated utility bond yields. This time period was selected because over the period 1986 through the third quarter of 2009, public utility stocks have consistently traded at a premium to book value. This is illustrated on Exhibit MPG-13, where the market-to-book ratio since 1986 for the electric utility industry was consistently above 1.0. Over this time period, regulatory authorized returns were sufficient to support market prices that at least exceeded book value. This is an indication that regulatory authorized

1 returns on common equity supported a utility's ability to issue additional common  
2 stock, without diluting existing shares. It further demonstrates that utilities were able  
3 to access equity markets without a detrimental impact on current shareholders.

4 Based on this analysis, as shown on Exhibit MPG-14, the average indicated  
5 equity risk premium over U.S. Treasury bond yields has been 5.16%. Of the 24  
6 observations, 18 indicated risk premiums fall in the range of 4.40% to 6.08%. Since  
7 the risk premium can vary depending upon market conditions and changing investor  
8 risk perceptions, I believe using an estimated range of risk premiums provides the  
9 best method to measure the current return on common equity using this  
10 methodology.

11 As shown on Exhibit MPG-15, the average indicated equity risk premium over  
12 contemporary Moody's utility bond yields was 3.71% over the period 1986 through  
13 2009. The indicated equity risk premium estimates based on this analysis primarily  
14 fall in the range of 3.03% to 4.44% over this time period.

15 **Q DO YOU BELIEVE THAT THIS RISK PREMIUM IS BASED ON A TIME PERIOD**  
16 **THAT IS TOO LONG OR TOO SHORT TO DRAW ACCURATE RESULTS**  
17 **CONCERNING CONTEMPORARY MARKET CONDITIONS?**

18 **A** No. Contemporary market conditions can change dramatically during the period that  
19 rates determined in this proceeding will be in effect. Therefore, relying on a relatively  
20 long period of time where stock valuations reflect premiums to book value is an  
21 indication that the authorized returns on equity and the corresponding equity risk  
22 premiums were supportive of investors' return expectations and provided utilities  
23 access to the equity markets under reasonable terms and conditions. Further, this  
24 time period is long enough to smooth abnormal market movement that might distort

1 equity risk premiums. While market conditions and risk premiums do vary over time,  
2 this historical time period is a reasonable period to estimate contemporary risk  
3 premiums.

4 The time period I use in this risk premium is a generally accepted period to  
5 develop a risk premium study using "expectational" data. Conversely, studies have  
6 recommended that use of "actual achieved return data" should be based on very long  
7 historical time periods. The studies find that achieved returns over short time periods  
8 may not reflect investors' expected returns due to unexpected and abnormal stock  
9 price performance. However, these short-term abnormal actual returns would be  
10 smoothed over time and the achieved actual returns over long time periods would  
11 approximate investors' expected returns. Therefore, it is reasonable to assume that  
12 averages of annual achieved returns over long time periods will generally converge  
13 on the investors' expected returns.

14 My risk premium study is based on expectational data, not actual returns, and,  
15 thus, need not encompass very long time periods.

16 **Q BASED ON HISTORICAL DATA, WHAT RISK PREMIUM HAVE YOU USED TO**  
17 **ESTIMATE DELMARVA'S COST OF EQUITY IN THIS PROCEEDING?**

18 **A** The equity risk premium should reflect the relative market perception of risk in the  
19 utility industry today. I have gauged investor perceptions in utility risk today on  
20 Exhibit MPG-16. On that exhibit, I show the yield spread between utility bonds and  
21 Treasury bonds over the last 29 years. As shown on this exhibit, the 2008 utility bond  
22 yield spreads over Treasury bonds for "A" rated and "Baa" rated utility bonds are  
23 2.25% and 2.97%, respectively. The utility bond spreads over Treasury bonds for "A"  
24 and "Baa" rated utility bonds for 2009 are 1.97% and 2.99%, respectively. These

1 utility bond yield spreads over Treasury bond yields are much higher than the 30-year  
2 average spreads of 1.61% and 2.00%, respectively.

3 While the yield spreads for 2008 and 2009 reflect unusually large spreads, the  
4 market has started to improve and these spreads have started to decline. For  
5 example, the 13-week average "A" rated utility bond yield has subsided relative to the  
6 end of 2008 and beginning of 2009, down to around 5.71%. This utility bond yield  
7 when compared to the Treasury bond yield of 4.47%, as shown on my Exhibit  
8 MPG-17, implies a yield spread of around 1.24% which is lower than the 30-year  
9 average spread for "A" utility bonds spread of 1.61%. The same is true for the "Baa"  
10 utility yields and spreads.

11 **Q HOW DID YOU ESTIMATE DELMARVA'S COST OF COMMON EQUITY WITH**  
12 **THIS RISK PREMIUM MODEL?**

13 A I added a projected long-term Treasury bond yield to my estimated equity risk  
14 premium over Treasury yields. *Blue Chip Financial Forecasts* projects the 30-year  
15 Treasury bond yield to be 5.20%, and a 10-year Treasury bond yield to be 4.5%.<sup>16</sup>  
16 Using the projected 30-year bond yield of 5.20% and a Treasury bond risk premium  
17 of 4.40% to 6.08%, as developed above, produces an estimated common equity  
18 return in the range of 9.60% to 11.28%, with a midpoint of 10.44%.

19 I next added my equity risk premium over utility bond yields to a current  
20 13-week average yield on "A" rated utility bonds for the period ending January 29,  
21 2010 of 5.71%, as shown on my Exhibit MPG-17. Adding the utility equity risk  
22 premium of 3.03% to 4.44%, as developed above, to an "A" rated bond yield of

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<sup>16</sup>*Blue Chip Financial Forecasts*, February 1, 2010 at 2.



5.71%, produces a cost of equity in the range of 8.74% to 10.15%, with a midpoint of 9.45%.

My risk premium analyses produce a return estimate in the range of 9.45% to 10.44%, with a midpoint estimate of 9.95%.

### **CAPITAL ASSET PRICING MODEL (CAPM)**

**Q PLEASE DESCRIBE THE CAPM.**

**A** The CAPM method of analysis is based upon the theory that the market required rate of return for a security is equal to the risk-free rate, plus a risk premium associated with the specific security. This relationship between risk and return can be expressed mathematically as follows:

$$R_i = R_f + B_i \times (R_m - R_f) \text{ where:}$$

$R_i$  = Required return for stock i

$R_f$  = Risk-free rate

$R_m$  = Expected return for the market portfolio

$B_i$  = Beta - Measure of the risk for stock

The stock-specific risk term in the above equation is beta. Beta represents the investment risk that cannot be diversified away when the security is held in a diversified portfolio. When stocks are held in a diversified portfolio, firm-specific risks can be eliminated by balancing the portfolio with securities that react in the opposite direction to firm-specific risk factors (e.g., business cycle, competition, product mix, and production limitations).

The risks that cannot be eliminated when held in a diversified portfolio are nondiversifiable risks. Nondiversifiable risks are related to the market in general and are referred to as systematic risks. Risks that can be eliminated by diversification are

1       regarded as non-systematic risks. In a broad sense, systematic risks are market  
2       risks, and non-systematic risks are business risks. The CAPM theory suggests that  
3       the market will not compensate investors for assuming risks that can be diversified  
4       away. Therefore, the only risk that investors will be compensated for are systematic  
5       or non-diversifiable risks. The beta is a measure of the systematic or  
6       non-diversifiable risks.

7       **Q       PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

8       A       The CAPM requires an estimate of the market risk-free rate, the company's beta, and  
9       the market risk premium.

10      **Q       WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?**

11      A       As previously noted, *Blue Chip Financial Forecasts'* projected 30-year Treasury bond  
12      yield is 5.20%.<sup>17</sup> The current 30-year bond yield is 4.33%. I used *Blue Chip Financial*  
13      *Forecasts'* projected 30-year Treasury bond yield of 5.20% for my CAPM analysis.

14      **Q       WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN ESTIMATE**  
15      **OF THE RISK-FREE RATE?**

16      A       Treasury securities are backed by the full faith and credit of the United States  
17      government. Therefore, long-term Treasury bonds are considered to have negligible  
18      credit risk. Also, long-term Treasury bonds have an investment horizon similar to that  
19      of common stock. As a result, investor-anticipated long-run inflation expectations are  
20      reflected in both common stock required returns and long-term bond yields.  
21      Therefore, the nominal risk-free rate (or expected inflation rate and real risk-free rate)

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<sup>17</sup> *Blue Chip Financial Forecasts*, February 1, 2010 at 2.

1 included in a long-term bond yield is a reasonable estimate of the nominal risk-free  
2 rate included in common stock returns.

3 Treasury bond yields, however, do include risk premiums related to  
4 unanticipated future inflation and interest rates. A Treasury bond yield is not a  
5 risk-free rate. Risk premiums related to unanticipated inflation and interest rates are  
6 systematic or market risks. Consequently, for companies with betas less than 1.0,  
7 using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis  
8 can produce an overstated estimate of the CAPM return.

9 **Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

10 A As shown on Exhibit MPG-18, the Combination Electric and Gas Utilities and S&P  
11 Electric Utilities Proxy Groups' average *Value Line* beta estimates are 0.72 and 0.75,  
12 respectively.

13 **Q HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?**

14 A I derived two market risk premium estimates, a forward-looking estimate and one  
15 based on a long-term historical average.

16 The forward-looking estimate was derived by estimating the expected return  
17 on the market (as represented by the S&P 500) and subtracting the risk-free rate from  
18 this estimate. I estimated the expected return on the S&P 500 by adding an expected  
19 inflation rate to the long-term historical arithmetic average real return on the market.  
20 The real return on the market represents the achieved return above the rate of  
21 inflation.

22 Morningstar's *Stocks, Bonds, Bills and Inflation 2009 Yearbook* publication  
23 estimates the historical arithmetic average real market return over the period 1926 to

2008 as 8.5%. A current consensus analysts' inflation projection, as measured by the Consumer Price Index, is 2.1%.<sup>18</sup> Using these estimates, the expected market return is 10.78%.<sup>19</sup> The market premium then is the difference between the 10.78% expected market return, and my 5.20% risk-free rate estimate, or 5.58%.

The historical estimate of the market risk premium was also estimated by Morningstar in *Stocks, Bonds, Bills and Inflation 2009 Yearbook*. Over the period 1926 through 2008, Morningstar's study estimated that the arithmetic average of the achieved total return on the S&P 500 was 11.70%, and the total return on long-term Treasury bonds was 6.10%. The indicated equity risk premium is 5.60% (11.70% - 6.10% = 5.60%).

**Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO THAT ESTIMATED BY MORNINGSTAR?**

A Morningstar estimates a forward-looking market risk premium based on actual achieved data from the historical period of 1926 through year-end 2008. Using this data, Morningstar estimates a market risk premium derived from the total return on large company stocks (S&P 500), less the income return on Treasury bonds. The total return includes capital appreciation, dividend or coupon reinvestment returns, and annual yields received from coupons and/or dividend payments. The income return, in contrast, only reflects the income return received from dividend payments or coupon yields. Morningstar argues that the income return is the only true risk-free rate associated with the Treasury bond and is the best approximation of a truly risk-free rate. I disagree with this assessment from Morningstar, because it does not reflect a true investment option available to the marketplace and therefore does not

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<sup>18</sup>Blue Chip Financial Forecasts, February 1, 2010 at 2.

<sup>19</sup> $\{ [(1 + 0.085) * (1 + 0.021)] - 1 \} * 100$ .

1 produce a legitimate estimate of the expected premium of investing in the stock  
2 market versus that of Treasury bonds. Nevertheless, I will use Morningstar's  
3 conclusion to show the reasonableness of my market risk premium estimates.

4 Morningstar's analysis indicates that a market risk premium falls somewhere  
5 in the range of 5.7% to 6.5%. This range is based on several methodologies. First,  
6 Morningstar estimates a market risk premium of 6.5% based on the difference  
7 between the total market return on common stocks (S&P 500) less the income return  
8 on Treasury bond investments. Second, Morningstar found that if the New York  
9 Stock Exchange (the NYSE) was used as the market index rather than the S&P 500,  
10 that the market risk premium would be 6.3% and not 6.5%. Third, if only the two  
11 deciles of the largest companies included in the NYSE were considered, the market  
12 risk premium would be 5.8%.<sup>20</sup>

13 Finally, Morningstar found that the 6.5% market risk premium based on the  
14 S&P 500 was impacted by an abnormal expansion of price-to-earnings (P/E) ratios  
15 relative to earnings and dividend growth during the period 1980 through 2001.  
16 Morningstar believes this abnormal P/E expansion is not sustainable. Therefore,  
17 Morningstar adjusted this market risk premium estimate to normalize the growth in the  
18 P/E ratio to be more in line with the growth in dividends and earnings. Based on this  
19 alternative methodology, Morningstar published a long-horizon supply-side market  
20 risk premium of 5.7%.<sup>21</sup>

21 Thus, based on all of Morningstar's estimates, the market risk premium falls  
22 somewhere in the range of 5.7% to 6.5%.

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<sup>20</sup>Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. Morningstar, Inc. *Ibbotson SBBI 2009 Valuation Yearbook* at 56 and 57.

<sup>21</sup>*Id.* at 67-69.

**Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

A As shown on Exhibit MPG-19, based on my low end market risk premium of 5.7% and high end market risk premium of 6.5%, a risk-free rate of 5.2%, and average proxy group beta estimates of 0.72 and 0.75, my CAPM analysis produces a return in the range of 9.59% to 9.80%, with a midpoint of 9.70%.

**Return on Equity Summary**

**Q BASED ON THE RESULTS OF YOUR RATE OF RETURN ON COMMON EQUITY ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO YOU RECOMMEND FOR DELMARVA?**

A Based on my analyses, I estimate Delmarva's current market cost of equity to be 9.9%.

TABLE 3	
<u>Return on Common Equity Summary</u>	
<u>Description</u>	<u>Results</u>
DCF	10.10%
RP	9.95%
CAPM	9.70%

My recommended return on equity for Delmarva's electric operations is at the approximate midpoint of my estimated range of 9.7% to 10.1%. The low end is based on my CAPM return estimate and my high end is based on my DCF estimate. The RP return estimate is very similar to my recommended return on equity.

**FINANCIAL INTEGRITY**

**Q WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN INVESTMENT GRADE BOND RATING FOR DELMARVA?**

A Yes. I have reached this conclusion by comparing the key credit rating financial ratios for Delmarva at my proposed capital structure, and my return on equity to S&P's benchmark financial ratios using S&P's new credit metric ranges.

**Q PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT METRIC METHODOLOGY.**

A S&P publishes a matrix of financial ratios that correspond to its assessment of the business risk of the utility company and related bond rating. S&P updated its credit metric guidelines on November 30, 2007, and incorporated utility metric benchmarks with the general corporate rating metrics. However, the effect of integrating the utility metrics with that of general corporate bonds resulted in a reduction to the transparency in S&P's credit metric guideline for utilities. Most recently, on May 27, 2009 S&P expanded its matrix criteria and included an additional business and financial risk category. Based on S&P's most recent credit matrix, the business risk profile categories are "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and "Vulnerable." Most electric utilities have a business risk profile of "Excellent" or "Strong." The financial risk profile categories are "Minimal," "Modest," "Intermediate," "Significant," "Aggressive," and "Highly Leveraged." Most of the electric utilities have a financial risk profile of "Aggressive." Delmarva has an "Excellent" business risk profile and a "Significant" financial risk profile.

1    **Q     PLEASE DESCRIBE S&P'S USE OF THE FINANCIAL BENCHMARK RATIOS IN**  
2    **ITS CREDIT RATING REVIEW.**

3    A     S&P evaluates a utility's credit rating based on an assessment of its financial and  
4    business risks. A combination of financial and business risks equates to the overall  
5    assessment of Delmarva's total credit risk exposure. S&P publishes a matrix of  
6    financial ratios that defines the level of financial risk as a function of the level of  
7    business risk.

8                S&P publishes ranges for three primary financial ratios that it uses as  
9    guidance in its credit review for utility companies. The three primary financial ratio  
10   benchmarks it relies on in its credit rating process include: (1) debt to EBITDA,  
11   (2) funds from operations (FFO) to total debt, and (3) total debt to total capital.

12   **Q     HOW DID YOU APPLY S&P'S FINANCIAL RATIOS TO TEST THE**  
13   **REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?**

14   A     I calculated each of S&P's financial ratios based on Delmarva's cost of service for  
15   retail operations. While S&P would normally look at total consolidated financial ratios  
16   in its credit review process, my investigation in this proceeding is to judge the  
17   reasonableness of my proposed cost of capital for rate-setting in Delmarva's utility  
18   operations. Hence, I am attempting to determine whether the rate of return and cash  
19   flow generation opportunity reflected in my proposed utility rates for Delmarva will  
20   support target investment grade bond ratings and financial integrity.

21   **Q     DID YOU INCLUDE ANY OFF-BALANCE SHEET DEBT?**

22   A     Yes. As shown in Exhibit MPG-20, I estimated off-balance sheet debt equivalents of  
23   \$41.5 million attributed to Delmarva's operating leases.



**Q HOW DID YOU ESTIMATE DELMARVA'S OFF-BALANCE SHEET DEBT?**

A The off-balance sheet debt is shown on Exhibit MPG-20. First, I developed a Delmarva allocator, which is the ratio of Delmarva's Delaware rate base divided by total Company rate base.

Second, I obtained Delmarva's total Company off-balance sheet debt and associated imputed interest and amortization expenses from the S&P report provided by the Company in response to Data Request DEUG 1-10. Then, I applied the Delmarva allocator to Delmarva's total Company off-balance sheet debt and associated imputed interest and amortization expense.

**Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS FOR DELMARVA.**

A The S&P financial metric calculations for Delmarva are developed on Exhibit MPG-20.

As shown on Exhibit MPG-20, page 1, based on an equity return of 9.9%, Delmarva will be provided an opportunity to produce a debt to EBITDA ratio of 3.0x. This is within S&P's new "Significant" guideline range of 3.0x to 4.0x.<sup>22</sup> This ratio supports a credit rating of weak "A."

Delmarva's retail operations FFO to total debt coverage at a 9.9% equity return would be 22%, which is at the low end of the new "Significant" metric guideline range of 20% to 30%. The FFO/total debt ratio will support a strong "BBB" rated investment grade bond rating.

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<sup>22</sup>Standard & Poor's RatingsDirect: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

1 Finally, Delmarva's total debt ratio to total capital is 55%, which is within the  
2 new "Aggressive" guideline range of 50% to 60%. This total debt ratio will support a  
3 "BBB" investment grade bond rating.

4 At my recommended return on equity and my proposed capital structure, the  
5 Company's financial credit metrics are supportive of its current "A" utility bond rating.

6 **Q DO YOU BELIEVE THIS CREDIT METRIC EVALUATION OF DELMARVA AT**  
7 **YOUR PROPOSED RETURN ON EQUITY PROVIDES MEANINGFUL**  
8 **INFORMATION TO HELP THE COMMISSION DETERMINE THE**  
9 **APPROPRIATENESS OF YOUR RECOMMENDATION?**

10 **A** Yes. While S&P calculates these credit metrics based on total Company operations,  
11 and not the retail operations of Delmarva as I have performed in this study, it still  
12 provides meaningful information on the proposed rate of return for Delmarva in this  
13 case and how it will contribute and help support consolidated operations credit  
14 standing. Further, while credit rating agencies also consider other financial metrics  
15 and qualitative considerations, these metrics are largely driven by the cost of service  
16 items of depreciation expense and return on equity. Hence, to the extent these  
17 important aspects of cost of service impact Delmarva's internal cash flows, the  
18 relative impact on Delmarva will be measured by these credit metrics. As illustrated  
19 above, an authorized return on equity of 9.9% will support internal cash flows that will  
20 be adequate to maintain Delmarva's current investment grade bond rating.

**RESPONSE TO DR. MORIN**

**Q WHAT RATE OF RETURN ON COMMON EQUITY IS DELMARVA REQUESTING  
IN THIS PROCEEDING?**

A Delmarva is requesting a return on common equity of 10.75% if the straight fixed-variable rate design (SFV) is approved and 11.00% if the SFV is not adopted by the Commission. (Morin Direct at 4 and 56-57).

**Q PLEASE DESCRIBE HOW DR. MORIN DEVELOPED HIS RETURN ON EQUITY  
RANGE FOR DELMARVA.**

A Dr. Morin used a capital asset pricing model, an empirical capital asset pricing model, a risk premium study, and several discounted cash flow studies to support his return on equity estimate for Delmarva. Dr. Morin employed these models to two proxy groups including: (1) the Combination Electric and Gas Utilities; and (2) the Standard & Poor's Electric Utilities.

Dr. Morin's estimated return on equity for Delmarva is shown below in Table 4 under column 1. Under column 2, I show adjustments to Dr. Morin's estimated return for Delmarva. These adjustments are described in more detail below.

TABLE 4		
<u>Summary of Dr. Morin's ROE Estimates</u>		
<u>Description</u>	<u>Morin Result</u> (1)	<u>Adjusted Result</u> (2)
Traditional CAPM	9.40%	9.10%
Empirical CAPM	<u>9.80%</u>	<u>Reject</u>
<b>Average CAPM</b>	<b>9.60%</b>	<b>9.10%</b>
Historical Risk Premium Electric	10.90%	10.21%
<u>Constant Growth DCF</u>		
Combination Electric and Gas Utilities ( <i>Value Line</i> Growth)	11.60%	<b>11.43%</b>
Combination Electric and Gas Utilities (Zacks Growth)	10.70%	<b>9.77%</b>
S&P Electric Utilities ( <i>Value Line</i> Growth)	11.20%	<b>10.43%</b>
S&P Electric Utilities (Zacks Growth)	<u>11.40%</u>	<u><b>10.76%</b></u>
<b>Average Constant Growth DCF</b>	<b>11.23%</b>	<b>10.60%</b>
<u>Multi-Stage Growth DCF</u>		
Combination Electric and Gas Utilities ( <i>Value Line</i> Growth)		<b>10.22%</b>
Combination Electric and Gas Utilities (Zacks Growth)		<b>10.10%</b>
S&P Electric Utilities ( <i>Value Line</i> Growth)	N/A	<b>10.13%</b>
S&P Electric Utilities (Zacks Growth)		<u><b>10.08%</b></u>
<b>Average Multi-Stage Growth DCF</b>		<b>10.12%</b>
<b>Recommended ROE</b>	<b>10.75% - 11.00%</b>	
<b>Adjusted ROE</b>		<b>9.90%</b>
Source: Morin Direct Testimony at 46.		

1 As described in detail below, Dr. Morin's ROE estimates should be adjusted  
2 as shown in column 2 of the table above. Based on these adjustments, Dr. Morin's  
3 return on equity estimates support a return on equity for Delmarva in the range of  
4 9.10% to 10.60%, with a midpoint of 9.90%. Therefore, Dr. Morin's analyses, with  
5 reasonable adjustments, support my recommended return on equity of 9.90%.

**Q PLEASE DESCRIBE DR. MORIN'S TRADITIONAL CAPM ANALYSIS.**

A Dr. Morin used a risk-free rate of 4.30%, a market risk premium of 6.50%, and a beta of 0.74. With this data, Dr. Morin derived a CAPM estimate of 9.10%. He then added a 30 basis point return premium for flotation costs. This flotation adjustment increased his CAPM return estimate to 9.40%. (Morin Direct Testimony at 24).

**Q WHAT ISSUES DO YOU TAKE WITH DR. MORIN'S CAPM ANALYSIS?**

A For the reasons set out later in this testimony, I reject Dr. Morin's flotation cost because it is not based on Delmarva-specific costs. My main issue with Dr. Morin's CAPM analysis return estimate of 9.10% (excluding flotation costs) is his reliance on a market risk premium of 6.50%, which is based on the difference between the total return on the stock market (capital appreciation and income) and only the income return on Treasury bonds.

**Q WHAT ISSUES DO YOU HAVE WITH DR. MORIN'S MARKET RISK PREMIUM ESTIMATE?**

A Dr. Morin's market risk premium estimate is a high-end estimate and does not reflect a complete investigation of the market risk premium estimates made by Morningstar. A complete consideration of Morningstar's estimate indicates that a market risk premium falls in the range of 5.70% to 6.50%, as discussed above in regards to my market risk premium.

Dr. Morin chose to rely on a market risk premium at the high end of Morningstar's range. As explained above, the Morningstar market risk premium is based on the Treasury bond income return, and stock market total return. This risk premium does not reflect a true investment option available to investors, and

1 therefore does not produce a legitimate estimate of the expected premium of  
2 investing in the stock market versus that of Treasury bonds.

3 However, the market risk premium based on actual investment results of stock  
4 market versus Treasury bond investments, the indicated market risk premium at the  
5 end of 2008 decreased considerably from previous years. For example, at end of  
6 year 2007, the total investment return market risk premium was estimated to be  
7 6.60%. I believe the market disruption created an aberration to the market risk  
8 premium estimated from historical data through year-end 2008.

9 While I believe the methodology that underlies the 2008 market risk premium  
10 estimate of 5.70% is more accurate, I believe that this point estimate was severely  
11 impacted by the 2008 market disruptions. Therefore, I will not take issue with the  
12 market risk premium of 6.50% used by Dr. Morin, because it appears to be in line with  
13 a normalized market risk premium.

14 **Q PLEASE DESCRIBE DR. MORIN'S EMPIRICAL CAPM (ECAPM) ANALYSIS.**

15 A The ECAPM analysis adds two weighted risk premiums to a risk-free rate: a 75%  
16 weighted risk premium based on a 0.74 utility beta, and a 25% weighted risk premium  
17 based on a beta equal to the overall market beta of 1.0. The theory of the ECAPM is  
18 that a beta of less than 1.0 will increase toward the market beta of 1.0 over time,  
19 which is necessary because the risk of securities will be increasing over time.

20 **Q WHAT ISSUES DO YOU TAKE WITH DR. MORIN'S ECAPM ANALYSIS?**

21 A The ECAPM analysis should be rejected for several reasons. First, the practical  
22 result of Dr. Morin's ECAPM is that the CAPM return is based on a beta estimate of

1 0.81,<sup>23</sup> instead of his actual *Value Line* utility beta of 0.73. Indeed, the ECAPM  
2 analysis significantly overstates a utility company-specific risk premium for use in a  
3 risk premium analysis.

4 Second, the ECAPM produces the same mathematical adjustments to the  
5 result of a traditional CAPM return estimate as does the use of an adjusted *Value*  
6 *Line* beta relative to an unadjusted raw beta. Theoretical constructs of the ECAPM  
7 are based on a raw beta or unadjusted betas. Using a raw beta, the ECAPM will  
8 increase the CAPM return estimate when the raw betas are less than 1.0, and  
9 decrease the CAPM return estimate when the raw betas are greater than 1.0.

10 *Value Line's* adjusted beta creates the same impact on a CAPM return  
11 estimate as the ECAPM. Specifically, *Value Line's* beta adjustment when used in a  
12 traditional CAPM return estimate, will increase a CAPM return estimate when the beta  
13 is less than 1.0, and decrease the CAPM return estimate when the beta is greater  
14 than 1.0. Therefore, an ECAPM with a raw beta produces the same impact on the  
15 CAPM return estimate as does a traditional CAPM using an adjusted beta estimate.  
16 Importantly, I am not aware of any research, that was subjected to peer review, that  
17 supports Dr. Morin's proposed use of an adjusted beta in an ECAPM study.  
18 Therefore, Dr. Morin's proposal to use an adjusted beta in an ECAPM is not based on  
19 sound academic principles, is not supported by the academic community, and should  
20 be rejected.

21 Further, using an adjusted beta in an ECAPM analysis, as Dr. Morin proposes,  
22 double-counts the increase in the CAPM return estimates for betas less than 1.0, and  
23 correspondingly would decrease the CAPM return estimates for companies that have  
24 betas greater than 1.0. Since utility companies have betas less than 1.0, Dr. Morin's

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<sup>23</sup> Weighted at 75% utility proxy beta, plus the market beta of 1.0 weighted at 25%.

1 application of an ECAPM with adjusted beta estimates, overstates a CAPM return  
2 estimate for a utility company.

3 For all these reasons, Dr. Morin's ECAPM analysis should be rejected.

#### 4 **Historical Risk Premium**

5 **Q PLEASE DESCRIBE DR. MORIN'S HISTORICAL RISK PREMIUM.**

6 A Dr. Morin estimates the actual achieved return on electric utility stocks relative to that  
7 of long-term "A" rated utility bond securities over the period 1931 through end of year  
8 2007. This produced an achieved return on electric utility stocks above the achieved  
9 return on Treasury bonds of 5.00%.<sup>24</sup>

10 Dr. Morin then adds the estimated electric equity risk premium of 5.00% to his  
11 current yield on "A" rated utility bonds of 5.6%, to arrive at a risk premium estimated  
12 return of 10.6%. Finally, he increased these results by 30 basis points to include a  
13 flotation cost adder that produced a risk premium return of 10.9%.<sup>25</sup>

14 **Q WHAT ISSUE DO YOU TAKE WITH DR. MORIN'S RISK PREMIUM?**

15 A My main concern with Dr. Morin's analysis is that it has not been updated for the last  
16 two years, and it therefore skews the results of this historical achieved return study.  
17 Dr. Morin's study was concluded in 2007.

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<sup>24</sup> Schedule RAM-4.

<sup>25</sup> Morin Direct Testimony at 30.



**Q HOW WOULD THE RISK PREMIUM METHODOLOGY USED BY DR. MORIN CHANGE IF IT IS UPDATED TO INCLUDE THE MOST RECENT DATA?**

A Updating Dr. Morin's utility risk premium data for end of year 2008, and through year end 2009, produces a risk premium of 4.50%. This updated utility risk premium is developed on my Exhibit MPG-21.

**Q WHAT WOULD BE AN UPDATED RISK PREMIUM ESTIMATE USING DR. MORIN'S ANALYSIS UPDATED IN A CURRENT "A" RATED UTILITY BOND YIELD?**

A Using a utility risk premium of 4.50%, and an updated "A" rated utility bond yield of 5.71%, as shown on my Exhibit MPG-17, produces a market risk premium estimate of 10.21%.

**Q DO YOU BELIEVE IT IS APPROPRIATE TO EXCLUDE 2008 DATA FROM DR. MORIN'S RISK PREMIUM STUDY?**

A As noted above, I am concerned about the risk premium measurements relative to a Treasury bond or a risk-free rate. During the financial crisis, a flight to quality caused a substantial departure from normal valuations of low-risk Treasury bond securities. As such, market risk premiums relative to Treasury bonds (i.e., risk-free rate proxies), widened significantly at year-end 2008.

However, the same phenomenon is not reflective in the data for utility bond and utility equity securities. As shown on my schedule, in 2008 utility bonds did hold their value better than utility stocks, but the significant negative risk premium measured from 2008 is not atypical for risk premiums during the study period. Indeed, it appears to reflect a normal corporate security valuation response to a

1 distressed market. As such, I do not believe it is appropriate to exclude year-end  
2 2008 data from Dr. Morin's risk premium study.

3 **DCF Analyses**

4 **Q PLEASE DESCRIBE DR. MORIN'S DCF ANALYSES.**

5 A Dr. Morin performed a constant growth DCF analysis on: (1) Combination Electric  
6 and Gas Utilities; and (2) S&P Electric Utilities. Dr. Morin constructed two DCF  
7 analyses for each of the utility groups using a consensus analysts' growth rate  
8 projection from Zacks for one DCF analysis and a second DCF analysis using *Value*  
9 *Line's* projected growth rate.

10 As shown on Schedule RAM-6 through Schedule RAM-12, he relied on growth  
11 rate estimates in the range of 5.60% to 6.50% from both *Value Line* and Zacks to  
12 produce a DCF cost of equity in the range of 10.50% to 11.30%. He then added a  
13 30 basis point flotation cost adjustment to arrive at adjusted returns on equity in the  
14 range of 10.70% to 11.60%, with a midpoint of 11.20%.

15 **Q PLEASE DESCRIBE THE ISSUES YOU TAKE WITH DR. MORIN'S DCF**  
16 **ANALYSES.**

17 A Dr. Morin's DCF analysis suffers from the same deficiencies in regard to my constant  
18 growth DCF model as discussed in my direct testimony. Specifically, he uses growth  
19 rate estimates that are not sustainable in the long run, and dividend yields that are  
20 significantly higher relative to historical standards.

**Q WHY ARE THE GROWTH RATE ESTIMATES USED IN DR. MORIN'S DCF STUDY NOT REASONABLE?**

A Dr. Morin's average growth rates from *Value Line* and Zacks fall in the range of 5.60% to 6.50%. These growth rate estimates exceed the projected GDP growth rate of 4.90% for the next 10 years. As explained in detail in my direct testimony, the GDP growth rate can be used as a proxy for long-term sustainable growth rate because it represents the maximum growth rate of the U.S. economy. The growth rate estimates used in Dr. Morin's DCF study exceed the projected GDP growth rate of 4.90% by 70-160 basis points, and inflate the DCF return on equity results for Delmarva.

**Q WHY DO YOU BELIEVE THAT THE DIVIDEND YIELD USED BY DR. MORIN IS SIGNIFICANTLY HIGHER RELATIVE TO HISTORICAL STANDARDS?**

A As I discussed above, the current dividend yields are influenced by the financial crisis, which led to declining stock prices in the overall market, including the utility industry. Dr. Morin's DCF results are based on an expected dividend yield of approximately 5.2%, which is higher than the five-year average dividend yield of 3.74% as discussed above.

The decline in the recent stock prices, which triggered abnormally high dividend yields, relates to the expectations of reduced growth affected by the recent economic environment. Therefore, the current growth and dividend estimates represent contradictory market outlooks caused by the significant market decline at the end of 2008 and the beginning of 2009. Hence, the current constant growth DCF returns are not reliable and produce an inflated return for Delmarva.

1    **Q     DID DR. MORIN RECOGNIZE THE PROBLEMS WITH THE CONSTANT DCF**  
2    **MODEL IN THE CURRENT MARKET ENVIRONMENT?**

3    A     Yes. At page 28 of his direct testimony, Dr. Morin emphasized the fact that the  
4     current dividend yields are significantly higher, due to the stock price decline triggered  
5     by the financial crisis.

6    **Q     CAN DR. MORIN'S DCF MODEL BE MODIFIED TO REFLECT MORE**  
7    **REASONABLE GROWTH RATE ESTIMATES?**

8    A     Yes. To minimize the results from the financial crisis, Dr. Morin's DCF analysis  
9     should be updated to reflect more current information. The market for utility securities  
10    has largely recovered since the market turbulence, and current market utility  
11    valuations and costs are more reflective of normal ongoing utility cost of capital.  
12    Further, the relatively high short-term growth outlooks for security analysts, can be  
13    included in a multi-stage DCF analysis to produce a more reasonable and sustainable  
14    long-term growth outlook.

15   **Q     HOW WILL DR. MORIN'S DCF RESULT CHANGE IF IT IS UPDATED FOR MORE**  
16   **RECENT INFORMATION?**

17   A     I used stock price data, current dividends, and recent analyst growth rate estimates,  
18    as shown on my Exhibit MPG-22, and applied a constant growth and a multi-stage  
19    growth DCF analysis. Excluding Dr. Morin's flotation cost adjustment, the average  
20    DCF return will be reduced from 11.23% to approximately 10.60% (constant growth)  
21    and 10.12% (multi-stage growth) as shown on Exhibit MPG-22 and Table 4 above.

**Flotation Cost Adjustment**

**Q IS DR. MORIN'S PROPOSED FLOTATION COST ADJUSTMENT REASONABLE?**

A No. Flotation cost adjustments are a legitimate cost of issuing stock to the public. Actual book costs, however, should be used for this adjustment so the Commission Staff, and other interested intervenors, can audit the Company's actual common stock flotation expenses for reasonableness and amount. Any adjustment to Delmarva's cost of service for flotation cost expenses should be based only on known and measurable common stock flotation expenses.

In significant contrast, Dr. Morin's proposed flotation cost adjustment is not based on Delmarva's known, measurable, prudent, and reasonable common stock flotation costs. Rather, it is based on a general study of market flotation costs that may or may not have any relationship to Delmarva's actual cost of issuing stock to the public. Indeed, Dr. Morin acknowledges that Delmarva is not a publicly traded company, and therefore it is unclear what, if any, Delmarva's common stock flotation cost expenses might be. Further, while Delmarva receives its incremental equity capital from its parent company, it is not clear whether that equity capital is being funded by public common stock issuances, debt issuances, or internally generated funds. Hence, it simply is not known and measurable what, if any, common stock flotation costs should be properly allocated to Delmarva and should be reflected in its cost of service in this proceeding. For these reasons, Dr. Morin's proposed flotation cost adjustment is not based on known and measurable expenses and should be rejected.

**Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

A Yes, it does.

**Qualifications of Michael P. Gorman**

1    **Q     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2    A     Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,  
3           Chesterfield, Missouri 63017.

4    **Q     PLEASE STATE YOUR OCCUPATION.**

5    A     I am a consultant in the field of public utility regulation and a managing principal with  
6           Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7    **Q     PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK**  
8           **EXPERIENCE.**

9    A     In 1983 I received a Bachelors of Science Degree in Electrical Engineering from  
10          Southern Illinois University, and in 1986, I received a Masters Degree in Business  
11          Administration with a concentration in Finance from the University of Illinois at  
12          Springfield. I have also completed several graduate level economics courses.

13                In August of 1983, I accepted an analyst position with the Illinois Commerce  
14          Commission (ICC). In this position, I performed a variety of analyses for both formal  
15          and informal investigations before the ICC, including: marginal cost of energy, central  
16          dispatch, avoided cost of energy, annual system production costs, and working  
17          capital. In October of 1986, I was promoted to the position of Senior Analyst. In this  
18          position, I assumed the additional responsibilities of technical leader on projects, and  
19          my areas of responsibility were expanded to include utility financial modeling and  
20          financial analyses.

21                In 1987, I was promoted to Director of the Financial Analysis Department. In  
22          this position, I was responsible for all financial analyses conducted by the staff.

1        Among other things, I conducted analyses and sponsored testimony before the ICC  
2        on rate of return, financial integrity, financial modeling and related issues. I also  
3        supervised the development of all Staff analyses and testimony on these same  
4        issues. In addition, I supervised the Staff's review and recommendations to the  
5        Commission concerning utility plans to issue debt and equity securities.

6                In August of 1989, I accepted a position with Merrill-Lynch as a financial  
7        consultant. After receiving all required securities licenses, I worked with individual  
8        investors and small businesses in evaluating and selecting investments suitable to  
9        their requirements.

10               In September of 1990, I accepted a position with Drazen-Brubaker &  
11        Associates, Inc. In April 1995 the firm of Brubaker & Associates, Inc. (BAI) was  
12        formed. It includes most of the former DBA principals and Staff. Since 1990, I have  
13        performed various analyses and sponsored testimony on cost of capital, cost/benefits  
14        of utility mergers and acquisitions, utility reorganizations, level of operating expenses  
15        and rate base, cost of service studies, and analyses relating industrial jobs and  
16        economic development. I also participated in a study used to revise the financial  
17        policy for the municipal utility in Kansas City, Kansas.

18               At BAI, I also have extensive experience working with large energy users to  
19        distribute and critically evaluate responses to requests for proposals (RFPs) for  
20        electric, steam, and gas energy supply from competitive energy suppliers. These  
21        analyses include the evaluation of gas supply and delivery charges, cogeneration  
22        and/or combined cycle unit feasibility studies, and the evaluation of third-party  
23        asset/supply management agreements. I have also analyzed commodity pricing  
24        indices and forward pricing methods for third party supply agreements, and have also  
25        conducted regional electric market price forecasts.

1 In addition to our main office in St. Louis, the firm also has branch offices in  
2 Phoenix, Arizona and Corpus Christi, Texas.

3 **Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

4 A Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of  
5 service and other issues before the Federal Energy Regulatory Commission and  
6 numerous state regulatory commissions including: Arkansas, Arizona, California,  
7 Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas,  
8 Louisiana, Michigan, Missouri, Montana, New Jersey, New Mexico, New York, North  
9 Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Texas, Utah, Vermont,  
10 Virginia, Washington, West Virginia, Wisconsin, Wyoming, and before the provincial  
11 regulatory boards in Alberta and Nova Scotia, Canada. I have also sponsored  
12 testimony before the Board of Public Utilities in Kansas City, Kansas; presented rate  
13 setting position reports to the regulatory board of the municipal utility in Austin, Texas,  
14 and Salt River Project, Arizona, on behalf of industrial customers; and negotiated rate  
15 disputes for industrial customers of the Municipal Electric Authority of Georgia in the  
16 LaGrange, Georgia district.

17 **Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR**  
18 **ORGANIZATIONS TO WHICH YOU BELONG.**

19 A I earned the designation of Chartered Financial Analyst (CFA) from the CFA Institute.  
20 The CFA charter was awarded after successfully completing three examinations  
21 which covered the subject areas of financial accounting, economics, fixed income and  
22 equity valuation and professional and ethical conduct. I am a member of the CFA  
23 Institute's Financial Analyst Society.